

AMENDMENTS TO THE CLAIMS

The following listing of the claims replaces all prior versions of the claims.

LISTING OF THE CLAIMS

1. (Original) A radio for a communication system, the radio transmitting a carrier signal having plural time slots designated as active and inactive time slots by a system controller, the radio comprising:

a modulator that modulates the carrier signal with transmit data during active time slots when the transmit data is supplied from the system controller and discontinues modulation of the carrier signal during inactive time slots when random bits are supplied from the system controller; and

a transmitter that wirelessly transmits the carrier signal provided by said modulator.

2. (Original) The radio of claim 1, wherein said modulator discontinues modulation of the carrier signal gradually over at least a two-symbol time period.

3. (Currently Amended) The radio of claim 1, wherein said modulator modulates the carrier signal with transmit data, sync data and Coded Digital Control Channel Locator (CDL) information supplied from the system controller during active time slots and modulates the carrier signal only with sync data and CDL information during inactive time slots.

4. (Currently Amended) The radio of claim 1, wherein said transmitter wirelessly transmits the carrier signal to a mobile station in a Time Division Multiple Access (TDMA) TDMA communication system.

5. (Original) A method of reducing adjacent and co-channel interference generated by a radio, the radio transmitting a carrier signal having plural time slots designated as active time slots and inactive time slots by a system controller, the method comprising:

modulating the carrier signal with transmit data during active time slots when the transmit data is supplied by the system controller;

discontinuing modulation of the carrier signal during inactive time slots when random bits are supplied by the system controller; and

wirelessly transmitting the carrier signal.

6. (Currently Amended) The method of reducing adjacent and co-channel interference of claim 5, wherein said step of modulating comprises modulating the carrier signal with transmit data, sync data and Coded Digital Control Channel Locator (CDL) ~~CDL~~ information supplied by the system controller and said step of discontinuing modulation comprises modulating the carrier signal only with sync data and CDL information.

7. (Currently Amended) The method of reducing adjacent and co-channel interference of claim 5, wherein said step of modulating comprises modulating the carrier signal with transmit data, sync data and Coded Digital Control Channel Locator (CDL) ~~CDL~~ information supplied by the system controller and said step of discontinuing modulation comprises modulating the carrier signal only with sync data and CDL information.

8. (Currently Amended) The method of reducing adjacent and co-channel interference of claim 5, wherein the carrier signal is wirelessly transmitted by the radio to a mobile station in a Time Division Multiple Access (TDMA) ~~TDMA~~ communication system.

9. (Original) A system controller comprising:

means for providing transmit data for time slots of carrier signals to be wirelessly transmitted from base stations; and

control means for designating which of the time slots are active time slots wherein carrier signals are modulated with transmit data and which are inactive times slots wherein modulation of carrier signals with transmit data is discontinued,

said control means optimally organizing the time slots so that each carrier signal has a minimum number of active time slots.

10. (Original) The system controller of claim 9, wherein said control means optimally organizes the time slots so that an nth time slot of a carrier signal is an active time slot and nth time slots of adjacent carrier signals are inactive time slots.

11. (Original) The system controller of claim 9, wherein the carrier signals are Time Division Multiple Access (TDMA) ~~TDMA~~ carrier signals.

12. (Original) A method of reducing adjacent and co-channel interference in carrier signals comprising the steps of:

providing transmit data for time slots of carrier signals to be wirelessly transmitted from base stations;

designating which of the time slots are active time slots wherein carrier signals are modulating with transmit data and which are inactive time slots wherein modulation of carrier signals with transmit data is discontinued; and

optimally organizing the time slot so that each carrier signal has a minimum number of active time slots.

13. (Original) The method of reducing adjacent and co-channel interference of claim 12, wherein said step of optimally organizing comprises organizing the time slots so that a nth time slot of a carrier signal is an active time slot and nth time slots of adjacent carrier signals are inactive time slots.

14. (Currently Amended) The method of reducing adjacent and co-channel interference of claim 12, wherein the carrier signals are Time Division Multiple Access (TDMA) ~~TDMA~~ carrier signals.

15. (Original) An article of manufacture taking the form of a computer-readable medium for reducing adjacent and co-channel interference generated by a radio, the radio transmitting a carrier signal having plural time slots designated as active time slots and inactive time slots by a system controller, the article of manufacture comprising:

a modulation source code segment for causing a computer to modulate the carrier signal with transmit data when transmit data is supplied by the system controller during active time slots;

a discontinuation source code segment for causing the computer to discontinue modulation of the carrier signal when random bits are supplied from the system controller during inactive time slots; and

a transmission source code segment for causing the computer to wirelessly transmit the carrier signals.

16. (Currently Amended) The article of manufacture of claim 15, wherein the carrier signals are Time Division Multiple Access (TDMA) ~~TDMA~~ carrier signals.

17. (Original) An article of manufacture taking the form of a computer-readable medium for reducing adjacent and co-channel interference generated by a radio, the radio transmitting a carrier signal having plural time slots designated as active time slots and inactive time slots by a system controller, the article of manufacture comprising:

a transmit data source code segment for causing a computer to provide transmit data for time slots of carrier signals to be transmitted by base stations;

a designation source code segment for causing the computer to designate which of the time slots are active time slots wherein carrier signals are modulated with transmit data and which are inactive time slots wherein modulation of carrier signals with transmit data is discontinued; and

a first organization source code segment for causing the computer to optimally organize the time slots so that each carrier signal has a minimum number of active time slots.

18. (Original) The article of manufacture of claim 17, further comprising a second organization source code segment for causing the computer to organize time slots so that an nth time slot of a carrier signal is an active time slot and nth time slots of adjacent carrier signals are inactive time slots.

19. (Currently Amended) The article of manufacture of claim 17, wherein the carrier signals are Time Division Multiple Access (TDMA) ~~TDMA~~ carrier signals.

20. (Currently Amended) A propagated signal embodied in a carrier signal comprising:

a Coded Digital Control Channel Locator (CDL) ~~CDL~~ data segment for identifying the carrier signal;

a sync word segment for identifying a time slot of the carrier signal; and

a control and data segment modulated with transmit data when in an active time slot of the carrier signal and not modulated with transmit data when in an inactive ~~active~~-time slot of the carrier signal,

wherein multiple mobile stations lock on to the propagated signal and wherein interference created by the propagated signal in other propagated signals received by the mobile stations is reduced when the control and data segment of an inactive time slot is not modulated with transmit data.